

3. Identifying locations for Point-of-care hand rubs: ICLNs reported that there are strategic locations not mounted with rubs and identified 22 such locations.

4. HH education program and daily checklist for health care assistants (HCAs): This is implemented by the ICLNs for the reduction in compliance among HCAs is the highest.

After implementing the four programs, compliance increased to 83% in 2012 ( $n = 1743$ , CI 81–85%) which is significant ( $p < 0.01$ ) compared to 2009–2011. Alcohol hand rub consumption showed a similar trend in 2012, increasing from 8.1L per 1000 patient-days in 2011 to 9.1L in 2012.

To overcome Hand Hygiene campaign fatigue it is important to be innovative and adopting principles in management science. Results showed that optimizing the collaboration of ICLN will bridge the implementation gaps between the Infection Control Team and the frontline staff that significantly improve hand hygiene compliance.

#### KS 19

#### INFECTION CONTROL IN MULTI-DRUG RESISTANT ORGANISMS (MDROs)

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Multidrug-resistant organisms (MDROs), including gram-positive coccus (GPC) such as MRSA, VRE, VISA, VRSA and certain gram-negative bacilli (GNB) such as ESBL, carbapenem-resistant enterobacteriaceae (CRE), CRPA and CRAB had important infection control implications. Although transmission of MDROs is most frequently documented in acute care facilities, all healthcare settings affected by the antimicrobial resistance rates are also strongly correlated with hospital size, tertiary-level care, and even facility type (e.g., LTCF).

Emergence and transmission of antimicrobial-resistant microbes increased lengths of stay, costs, patient mortality and legal problem also had been associated with MDROs but the options for treating patients with these infections are often extremely limited.

The various types of intervention used to control or eradicate MDROs may be grouped into four major categories. These include diminishing healthcare associated infections by different care bundles such as for CLABSI, UTI and VAT, proper antibiotic stewardship policy (ASP), basic and advanced

environment cleaning and hospital active surveillance. Using a combination of interventions, MDROs in endemic, outbreak, and non-endemic settings have been brought under control.

Despite the volume of literature, an appropriate set of evidence-based control measures that can be universally applied in all healthcare settings has not been definitively established. The approaches to prevent and control of these pathogens need to be tailored to the specific needs of each population and individual institution. Antimicrobial resistance and its global spread, threatens the continued effectiveness of many medicines used today to treat the sick, while at the same time it risks jeopardizing important advances being made against major infectious killers. The prevention and control of MDROs is a national priority—one that requires all healthcare facilities and all related government departments to assume responsibility.

#### KS 20

#### WHONET – 25 (AND 50) YEARS ON

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Routine clinical microbiology laboratories generate daily a detailed window into evolving microbial populations worldwide. Our laboratory first created mainframe-based routines for the management of analysis of these data in 1964 for our own facility with a special focus on antimicrobial susceptibility tests results and the appearance and characterization of resistant pathogens. In the 1970s, we initiated national and international collaborations for monitoring resistance. The introduction of personal computers in the 1980s permitted collaborating laboratories to enter and analyze their own data for the first time, and our facility was

designated a WHO Collaborating Centre for Surveillance of Antimicrobial Resistance in 1986. The name WHONET was given to the software package in 1989 with the introduction of a software configuration module which permitted the independent dissemination of our software worldwide. Since that time, WHONET use has grown to support local, national, and global infection and antimicrobial resistance surveillance activities in over 2,300 human, animal, and food laboratories in over 110 countries worldwide. A current priority is assisting the World Health Organization with implementation of the Global Action Plan on Antimicrobial Resistance.